

### REMARKS

Claims 1-20 are currently pending. Claims 1-6, 8-14, and 17-20 are rejected under 35 U.S.C. 102 (b) as anticipated by or in the alternative under U.S.C. § 103(a) as obvious over Fujitani et al (US 5, 855,624).

Claims 1-6, 8, 15, and 17-20 are rejected under 35 U.S.C. 102 (b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as being unpatentable over Hamajima et al. (US 6,068,619).

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable Fujitani et al or Hamajima et al.

Claims 9-13 are rejected under USC 103 (a) as being unpatentable over Hamajima et al.

Claims 15-16 are rejected under USC 103 (a) as being unpatentable over Fujitani et al. in view of Lagerstedt-Eidrup et al (US PG Pub. 2003/0208173 A1).

Claim 16 is rejected under U.S.C. 103 (a) as being unpatentable over Hamajima et al. in view of Lagerstedt-Eidrup et al. (US PG Pub. 2003/0208173 A1).

Claims 1-20 are provisionally rejected on the grounds of nonstatutory obviousness-type double patenting over Claims 1-4 and 7-16 of copending application No. 10/748930.

Claims 1-20 are provisionally rejected on the ground of nonstatutory obviousness - type double patenting as being unpatentable over claims 1-13 of copending Application No. 10/748977.

Claims 1-20 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-8, 11-12, and 14 of copending Application No. 10/815206.

### The Rejection of Claims 1-6, 8-14, and 17-20 Under U.S.C § 102(b) /103 (a)

The rejection of Claims 1-6, 8-14, and 17-20 under U.S.C § 102(b) as being anticipated by Fujitani et al. or, in the alternative, under U.S.C § 103 (a) is respectfully traversed.

The Fujitani et al. reference has a different structure and composition and does not disclose all elements of the instant invention.

Fujitani et al. disclose *liquid ammonia treated* cellulose fibers whose partial or entire exterior is coated with an *ester* of a polycarboxylic acid having at least three carboxyl groups and a hydrophilic polyol having an *oxyethylene group or groups* and *at least two alcoholic groups* (hereinafter referred to as the “present polyol”) and/or which fibers are impregnated with said ester, column 2, line 33 – 40 and lines 45- 48.

In the instant invention the absorbent product comprises cellulosic fibers reacted with an effective amount of a crosslinking agent in the presence of an effective amount of a C<sub>4</sub>-C<sub>12</sub> polyol and the *individualized intrafiber* crosslinked cellulosic fibers are characterized by a Whiteness Index greater than about 69.0.

The Examiner has not established a prima facie case of anticipation or obviousness. Fujitani et al. do not disclose crosslinking (i.e. non ammonia treated) cellulose fibers with an effective amount of crosslinking agent in the presence of an effective amount of a C<sub>4</sub>-C<sub>12</sub> polyol and do not disclose *individualized intrafiber crosslinked* fibers with a Whiteness Index greater than 69. Applicants are appreciative of the Examiner's recognition that Fujitani et al. do not disclose a specific range for L, a value, b value and ISO brightness greater than about 79 %.

Since every element of the claim is not disclosed in the Fujitani et al. reference, the Examiner has not established a prima facie case of anticipation. Neither has the Examiner established obviousness since the reference does not teach, disclose or suggest the remaining elements of the claimed invention. Also, since the structure or the composition recited in the reference are not sufficiently similar to that of the claims of the instant invention the claimed properties cannot be presumed to be inherent. Furthermore, since by admission, the Examiner cannot determine whether or not the reference inherently possesses properties that anticipate or render obvious the claimed

invention, the rejection is improper. Withdrawal of the rejection and allowance of the claim is respectfully requested.

With regard to Claims 2-4 and Claim 14, Applicants are appreciative of the fact that the Examiner recognizes that Fujitani et al. do not expressly disclose the specific range for the L value, a value, b value and percent ISO brightness of the individualized intrafiber crosslinked cellulose fibers.

Claims 2- 4 and 14 are dependent on Claim 1.

As stated before, a prima facie case of either anticipation or obviousness cannot be established since the reference does not disclose all the limitations of claim 1, including the specific range for the L, a, and b values of the *individualized intrafiber crosslinked* fibers of Claims 2-4. Also, since the structure and composition recited in the reference are not sufficiently similar to that of the claims of the instant invention the claimed properties cannot be presumed to be inherent. Furthermore, since by admission, the Examiner cannot determine whether or not the reference inherently possesses properties that anticipate or render obvious the claimed invention, the rejection based on obviousness is improper. Applicants therefore request withdrawal of the rejection and allowance of the claims.

With regard to Claims 5-6 and 8, these claims are dependent on Claim 1. Since all the limitations of Claim 1 have not been met the rejection is not obvious or anticipated. Furthermore, Fujitani et al. only disclose citric acid ("the present polycarboxylic acid") as a component that forms one part of an ester (i.e., citric acid is combined with a polyol to form the ester which is then coated or impregnated onto or into the fiber). Accordingly the Examiner is respectfully requested to withdraw the rejection and allow the claim.

With regard to Claim 14, Applicants are appreciative of the fact that the Examiner recognizes that Fujitani et al. do not disclose a brightness value of greater than 79. Claim 14 is dependent on Claim 1 and all the limitations of Claim 1 have not been met as previously discussed. Accordingly the Examiner is respectfully requested to withdraw the rejection and allow the claim.

With regard to Claims 17-20, Fujitani et al. coat *liquid ammonia treated* cellulosic fibers whose partial or entire surface is coated with an *ester* of a polycarboxylic acid having at least three carboxyl groups and a hydrophilic polyol having an *oxyethylene group or groups* and *at least two alcoholic groups* and/or which fibers are impregnated with said ester, see Abstract.

Fujitani et al. do not teach, disclose or suggest the absorbent product comprising cellulosic fibers that have been reacted with an effective amount of a crosslinking agent *and a C<sub>4</sub> – C<sub>12</sub> polyol* where the *individualized intrafiber crosslinked* cellulosic fibers have a Whiteness Index greater than about 69.0. Since every limitation of Claim 1 have not been disclosed by Fujitani et al., there is no anticipation and withdrawal of the rejection is requested.

With regard to Claims 9-13, sorbitol, (“the present polyol”) is only one part of an ester (i.e. sorbitol is combined with a polycarboxylic acid to form the ester and then coated or impregnated onto or into the fiber). Furthermore, the Fujitani et al. reference does not disclose the alicyclic or heterocyclic polyols of which maltitol and lactitol, respectively, are representative polyols. Accordingly, the Examiner is respectfully requested to withdraw the rejection and allow the claims.

Claims 17-20 are dependent on Claim 1. Since every limitation of Claim 1 is not in the Fujitani et al. reference, the claims are not anticipated. Also, Claim 1 is not obvious since the Examiner has not established a prima facie case of obviousness. Fujitani et al. do not disclose crosslinking cellulose fibers with an effective amount of crosslinking agent in the presence of an effective amount of a C<sub>4</sub>-C<sub>12</sub> polyol and do not disclose *individualized intrafiber crosslinked* fibers with a Whiteness Index greater than about 69. Since the structure or the composition recited in the reference are not sufficiently similar to that of the claims of the instant invention the claimed properties cannot be presumed to be inherent. Furthermore, since by admission, Examiner cannot determine whether or not the reference inherently possesses properties that anticipate or render obvious the claimed invention,

the rejection based on obviousness is improper. Applicants therefore request withdrawal of the rejection and allowance of the claims

The Rejection of Claims 1-6, 8, 15, and 17-20 Under  
U.S.C. § 102(b) / 103a

Claims 1-6, 8, 15, and 17-20 are rejected under 35 U.S.C. 102 (b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as being unpatentable over Hamajima et al. (US 6,068,619).

Hamajima et al. disclose crosslinked cellulose fibers that are obtainable from an *intramolecular and/or intermolecular crosslinking* of cellulose, column 9, lines 37-39 and column 14, lines 45 – 47. Crosslinking agents such as dimethylolethyleneurea and dimethyloldihydroxyethyleneurea, polycarboxylic acids, such as citric acid, tricarballic acid, and butanetetracarboxylic acid and polyols such as dimethylhydroxyethyleneurea and polyglycidyl ethers, column 14, lines 20 – 26 are disclosed. Applicants submit that dimethylhydroxyethyleneurea, *is not* a polyol since it has only one hydroxyl group. Also, the molecule is a dialkylated ethylene urea with a hydroxyl group in position 4 (or 5). Neither are polyglycidyl ethers polyols, rather, they are *ethers*. Hamajima et al. disclose that *the intramolecular and / or intermolecular crosslinking* of the cellulose fibers is necessary since the twist and permanent set in fatigue do not occur with the cellulose fibers even when they are wetted. Also, the crosslinked cellulose fibers, by themselves, do not absorb liquid and therefore do not swell, hence the crosslinked cellulose fibers should be preferably obtained by carrying out both the crosslinking in the cellulose molecule and between the cellulose molecules, column 14, lines 45-59, i.e., *intrafiber and intrafiber crosslinking*.

In the instant invention the absorbent product comprises cellulosic fibers reacted with an effective amount of a crosslinking agent in the presence of an effective amount of a C<sub>4</sub>-C<sub>12</sub> polyol wherein the *individualized intrafiber* crosslinked cellulosic fibers are characterized by a Whiteness Index greater than about 69.0.

The Examiner has not established a prima facie case of anticipation. Hamajima et al. do not disclose crosslinking cellulose fibers with an effective amount of crosslinking agent in the presence of an effective amount of a C<sub>4</sub>-C<sub>12</sub> polyol and do not disclose *individualized intrafiber* crosslinked fibers with a Whiteness Index greater than 69. Applicants are appreciative of the Examiner's recognition that Hamajima et al. do not disclose a specific range for L, a value, b value and ISO brightness greater than about 79 %.

Since every element of the claim is not disclosed in the Hamajima et al. reference, the Examiner has not established a prima facie case of anticipation or obviousness. Also, since the structure or the composition recited in the reference are not sufficiently similar to that of the claims of the instant invention the claimed properties cannot be presumed to be inherent. Furthermore, since by admission, Examiner cannot determine whether or not the reference inherently possesses properties that anticipate or render obvious the claimed invention, the rejection is improper. Withdrawal of the rejection and allowance of the claim is respectfully requested.

Claim 5, 6, and Claim 8 are either directly or indirectly dependant from Claim 1. With regard to these claims, since each of the elements in the instant invention are not disclosed in the Hamajima et al. reference and not in the order of the claimed invention, the Examiner has not established a prima facie case of anticipation or obviousness. Withdrawal of the rejection is respectfully requested.

With regard to Claim 15, Hamajima et al. do not disclose a product comprising fluff pulp fibers *and* cellulosic fibers reacted with an effective amount of a crosslinking agent in the presence of an effective amount of a C<sub>4</sub>-C<sub>12</sub> polyol wherein the *individualized* intrafiber crosslinked cellulosic fibers are characterized by a Whiteness Index greater than about 69.0. Rather, Hamajima et al. cite natural cellulose fibers such as wood pulp or cotton that can be used to make the crosslinked fibers.

With regard to claims 17-20, since Claims 17-20 are dependent on Claim 1 and every limitation of Claim 1 is not in the Hamajima et al. reference, the claims are not anticipated. Also, Claim 1 is not obvious since

the Examiner has not established a prima facie case of obviousness. Hamajima et al. do not disclose crosslinking cellulose fibers with an effective amount of crosslinking agent in the presence of an effective amount of a C<sub>4</sub>-C<sub>12</sub> polyol and do not disclose *individualized intrafiber crosslinked* cellulosic fibers with a Whiteness Index greater than about 69. Since the structure or the composition recited in the reference are not sufficiently similar to that of the claims of the instant invention the claimed properties cannot be presumed to be inherent. Applicants therefore request withdrawal of the rejection and allowance of the claims

The Rejection of Claims 7 Under U.S.C. § 103( a)

Claim 7 is rejected under 35 U.S.C.103(a) as being unpatentable Fujitani et al. or Hamajima et al.

Claim 7 is indirectly dependant from Claim 1. Since every aspect of Claim 1 is not in the Fujitani et al. or Hamajima et al. references, and neither reference teaches or suggests the claimed invention, the claim is not obvious and withdrawal of the rejection is respectfully requested.

The Rejection of Claims 9-13 Under U.S.C. § 103(a)

Claims 9-13 are rejected under USC 103 (a) as being unpatentable over Hamajima et al.

Applicants submit that dimethylhydroxyethyleneurea as cited by the Hamajima et al. reference *is not* a polyol, it has only one hydroxyl group. Rather, the molecule is a dialkylated ethylene urea with a hydroxyl group in position 4 (or 5). Neither are polyglycidyl ethers polyols, rather, they are ethers. Sorbitol, as cited in the Fujitani et al. reference is only cited as an example of an alcohol with three hydroxyl groups that can be used to make an ester with a polycarboxylic acid and coated on the fiber. There is no teaching in the Hamajima et al. reference that would motivate a skilled person to use the reference to arrive at the claimed invention.

The Rejection of Claims 15 -16 Under U.S.C. § 103(a)

Claims 15-16 are rejected under U.S.C. § 103(a) as being unpatentable over Fujitani et al. in view of Lagerstedt-Eidrup et al. (US PG Pub. 2003/0208173 A1).

Claims 15 and 16 are dependent on Claim 1. Since all the limitations of Claim 1 have not been met and, as discussed earlier, the claim is not obvious, withdrawal of the rejection is respectfully requested.

Lagerstedt - Eidrup et al. teach an absorbent article containing a skin conditioning agent contained in a hydrogel foam material intended to be applied in skin contact with the wearer either directly or indirectly via a liquid permeable material.

Applicants submit that the Examiner has failed to establish a *prima facie* case of obviousness. To establish a *prima facie* case of obviousness there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine or modify the references or teachings. Applicants submit there is no motivation or suggestion to combine the Lagerstedt-Eidrup reference with the Fujitani et al. reference since one skilled in the art would not look to the nonanalogous art of a skin conditioning agent to combine with the fibers of Fujitani et al. to arrive at the present invention. Furthermore, the combined references do not teach all the limitations of Claims 1, 15 and 16. In view of the above remarks, Applicants request withdrawal of the rejection of Claims 15-16.

The Rejection of Claims 16 Under U.S.C. § 103(a)

Claim 16 is rejected under U.S.C. 103 (a) as being unpatentable over Hamajima et al. in view of Lagerstedt-Eidrup et al. (US PG Pub. 2003/0208173 A1).

Applicants submit that the Hamajima et al. reference does not disclose the claimed invention. As noted above, the Hamajima et al. reference dictates the need for *intrafiber and interfiber crosslinked* cellulose, does not teach crosslinking with a polycarboxylic acid in the presence of a polyol, since the cited compounds are not polyols, but rather a dialkylated ethylene urea with a hydroxyl group on position 4 or 5, or ethers.



Langerstedt - Eidrup et al. teach an absorbent article containing a skin conditioning agent contained in a hydrogel foam material intended to be applied in skin contact with the wearer either directly or indirectly via a liquid permeable material.

Applicants submit that the Examiner has failed to establish a *prima facie* case of obviousness. To establish a *prima facie* case of obviousness there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine or modify the references or teachings. Applicants submit there is no motivation or suggestion to combine the Langerstedt-Eidrup reference with the Hamajima et al. reference since one skilled in the art would not look to the non- analogous art of a skin conditioning agent to combine with the fibers of Hamajima et al. to arrive at the present invention. Furthermore, the combined references do not teach all the limitations of Claims 1, 15 and 16. In view of the above remarks, Applicants request withdrawal of the rejection of Claims 15-16.

The Examiner is therefore respectfully requested to reexamine the application, to reconsider and withdraw the objections under 35 U.S.C. § 102 (b), and U.S.C. § 103 (a), and promptly allow the case and pass it to issue.

The Provisional Obviousness-Type Double Patenting Rejections

Claims 1-20 are provisionally rejected on the ground of obviousness-type double patenting as being unpatentable over Claims 1-4 and 7-16 of copending Application No. 10/748930.

Claims 1-20 are provisionally rejected on the ground of obviousness-type double patenting as being unpatentable over Claims 1-13 of copending Application No. 10/948977.

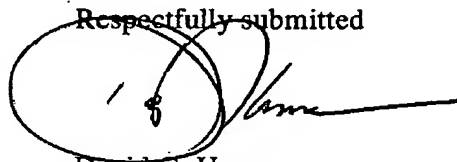
Claims 1-20 are provisionally rejected on the ground of obviousness-type double patenting as being unpatentable over claims 1-8, 11-12, and 14 of copending Application No. 10/815206.

Applicants note the provisional double patenting rejections and will file a terminal disclaimer on the Examiner's indication of allowable subject matter in this application.

### CONCLUSION

Based on the foregoing, Applicants submit that the application is in condition for allowance and request that it be allowed to proceed accordingly. If the Examiner has any further questions or comments the Examiner is invited to contact the undersigned.

Respectfully submitted

A handwritten signature in black ink, appearing to read 'D. Unrau', is written over a circular stamp. The signature is fluid and extends to the right.

David G. Unrau

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Direct Dial 253-924-2439